CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 92-078
WASTE DISCHARGE REQUIREMENTS

TOSCO REFINING COMPANY AND TOSCO CORPORATION
AVON REFINERY
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

Facility Description

1. Tosco Refining Company, a division of Tosco Corporation, (hereinafter called the discharger) owns and operates the Avon Refinery (hereinafter called the facility) with an approximate daily throughput capacity of 145,000 barrels of petroleum crude oil and produces primarily gasoline and diesel fuels. Other products are liquid petroleum gas, heating oil, jet fuel and petroleum coke. The facility has been operating since 1913 and has been owned by the discharger since 1976. Phillips Petroleum, Tidewater Oil, Pacific Oil, and Associated Oil Companies were the previous owners of this facility.

2. This 2,100-acre facility is about 3 miles east of the City of Martinez (Attachment 1) on the southern shore of Suisun Bay in Contra Costa County. The facility is bounded on the west by the Pacheco Creek and Walnut Creek, on the north by wetlands and Suisun Bay, on the south by Highway 4, and on the east by Memory Gardens cemetery, Mallard Reservoir, Hasting Slough and wetlands.

3. The Concord fault is an active fault which runs through the western side of this facility. Special studies along the Concord fault delineated a zone of concern which encompasses a portion of this facility.

4. A portion of the facility was built on marshlands or wetlands. Fill is the first subsurface material encountered in much of the flat portions of the facility. The second subsurface material generally encountered is Bay Mud. Interbedded with the Bay Mud are the Bay Peat, and sandy units. The Bay Peat is composed primarily of black or brown organic matter derived from vegetation deposited in marshes. The Bay Mud ranges in thickness from zero to forty feet throughout the region.

5. There are four drinking water wells approximately 3,000 feet from Mallard Reservoir, which is located southeast of the facility. Groundwater in other parts of the facility is also a potential drinking water source. Total dissolved solids in the shallow groundwater, within the major northern portion of the facility closer to the Bay exceeds 3,000 mg/l, and thus does not meet the State Board definition of potential drinking water source. Groundwater and surface water from the facility